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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,527	06/29/2001	Shmuel Wimer	219.39069X00	2974

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EXAMINER

GARCIA OTERO, EDUARDO

ART UNIT PAPER NUMBER

2123

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,527

Applicant(s)

WIMER, SHMUEL

Examiner

Eduardo Garcia-Otero

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/6/01, 10/22/01, 2/9/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION: Non-Final (first action on the merits)

Introduction

1. Title is: ARRANGEMENTS FOR AUTOMATIC RE-LEGGING OF TRANSISTORS.
2. First named inventor is: WIMER
3. Claims 1-18 are pending.
4. US application was filed 6/29/01, and no earlier priority is claimed.
5. Preliminary amendment received 9/6/01, formal drawings received 10/22/01, and change in power of attorney received 2/9/04.

Index of Important Prior Art

6. Ganesh refers to US patent 6,823,500 B1.

Definitions

7. “**Hard intellectual property (IP) layout source design**” and “**hard IP**” are defined as integrated circuit designs that “all work for verification and simulation have already been done, and the [IC design] is already proven as operational in silicon” at Specification page 2.

Claim Interpretation

8. In claim 1, the term “a re-legging arrangement” is interpreted as equivalent to the equations of claim 2, because no other interpretation is supported and enabled by the Specification.
9. In claim 4, the term “at least two operations selected from the list of” is interpreted as a Markush group, per MPEP 2173.05(h).

35 USC § 101- Ex parte Lyell-2 classes claimed

10. 35 U.S.C. 101 reads as follows: Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
11. Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
12. Claim 1 preamble states “re-legging arrangement to perform”. Thus, claim 1 appears to be a single claim which claims both a machine and a process for using the machine.
13. Similarly, claim 2 states “re-legging arrangement automatically deciding”.
14. Similarly, claim 5 states “system”.

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15. See MPEP 2173.05(p)(II), which states: "A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. In *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990), a claim directed to an automatic transmission workstand and the method steps of using it was held to be ambiguous and properly rejected under 35 U.S.C. 112, second paragraph. Such claims should also be rejected under 35 U.S.C. 101 based on the theory that the claim is directed to neither a "process" nor a "machine," but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. *Id.* at 1551."
16. Also see MPEP 2106 regarding computer related inventions.
17. See MPEP 2106(IV)(B)(1) regarding data structures.
18. Note that "software" is generally not patentable as such, but must be claimed as process steps, or as machine, or as manufacture. For example, software may be claimed as machine or [article of] manufacture by stating "a computer readable medium containing instructions, which when executed, cause the following steps to be performed".
19. All other pending claims are rejected for the same reasons.
20. Additionally, if the equation of page 22 is "necessary" as stated in the specification page 22, then it appears that any claims without this equation may lack utility.
21. Further, the definitions for N_{new} at Specification page 21 and throughout the claims appear incorrect (they are identical to the definition for W_{old} , which does not appear to be the Applicant's intent).

35 USC § 112-Second Paragraph-indefinite claims

22. The following is a quotation of the second paragraph of 35 U.S.C. 112: The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
23. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
24. Claims 1-18 are rejected under 35 USC 112 for the same reasons as rejected above under 35 USC 101, see MPEP 2173.05(p)(II).

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25. Additionally, in claim 1, the term “a re-legging arrangement” is interpreted as equivalent to the equations of claim 2, because no other interpretation is supported and enabled by the Specification. Thus, it is not clear how claim 1 is distinct from claim 2.
26. Claim 3, depends from claim 2. However, the equation of claim 3 appears inconsistent with the equation of claim 2, and thus not further limiting per 35 USC 112 paragraph 4. The other claims have similar difficulties.
27. Further, Specification page 22 states “It is necessary to maintain the evenness of the number of legs... correction... The actual number of legs in the new layout is” and then presents the equation of claim 3. The equation of claim 3 contains the term N_{new} on the left side of the equation, and the same term N_{new} on the right side of the equation. Possibly the Applicant intends for the equation to state $N_{\text{new}}(\text{even})$ or perhaps $N_{\text{new}}(\text{corrected})$ on the left side of the equation. The term N_{new} on the right side of the equation appears to refer to the solution of the equation from claim 2, and from Specification page 21.
28. In other words, the Applicant appears to be improperly using the same term for different meanings. Please amend appropriately.
29. Additionally, if the equation of page 22 is “necessary” as stated in the specification, then it appears that any claims without this equation may lack utility.
30. Further, the definitions for N_{new} at Specification page 21 and throughout the claims appear incorrect (they are identical to the definition for W_{old} , which does not appear to be the Applicant’s intent).

Patentable material

31. At present, the Examiner believes that this application may contain some potentially patentable material. The equations for re-legging may be patentable if all of the above rejections can be overcome.

Additional Cited Prior Art

32. The following US patents or publications are hereby cited as prior art, but have not been used for rejection. Applicant should review these carefully before responding to this office action.
33. US patent 6,823,500 B1 column 7 line 51 states “Re-legging”, but does not provide the equations claimed in the present application.

Conclusion

34. All pending claims stand rejected.
35. However, the equations for re-legging may be patentable if all of the above rejections can be overcome.
36. Further, note that all of the present claims include the term “hard IP” or similar. This limitation appears unnecessarily narrow, because it appears that the re-legging equations may also be applied to “soft IP”. The Specification supports a broader claim that does not include this limitation. See definitions section above. From a procedural point of view, this type of possibly unintentional limitation may be avoided by keeping the preamble as concise as possible.
37. The Examiner makes the following suggestions in the interests of overcoming pending rejections and accelerating prosecution of the application:
- First, please use unique and consistent terminology for each machine element. Note MPEP 2173.
 - Second, please explicitly and separately list each machine element. Note 37 CFR 1.75(i) which states “Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation”.
 - Third, please explicitly and separately list sub-elements which may comprise each element. Note MPEP 608.01(m) “There may be plural indentations to further segregate subcombinations or related steps”.
 - Fourth, please clearly distinguish between mere intended use of the machine, in contrast to essential intended use which inherently requires some additional limitations of the machine element. For example, the term “a machine element capable of performing a process” or “a machine element capable of” would be interpreted as a limitation, and not as a mere intended use.
 - Fifth, please clearly state one single 35 USC 101 statutory category in the preamble. It is preferable to use the 35 USC 101 terminology (“process”, “machine”, etc) and avoid vague and ambiguous terminology such as “system” or “arrangement to perform”. Additionally, it is preferable to avoid placing limitations in the preamble, because

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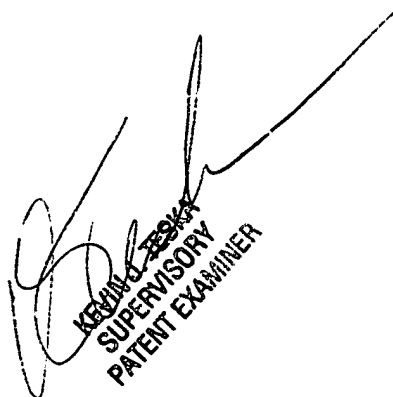
limitations in the preamble may be interpreted as mere intended use, and thus may lead to ambiguity and confusion and protracted prosecution.

- Sixth, please amend the process claims in similar fashion.

Communication

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Garcia-Otero whose telephone number is 571-272-3711. The examiner can normally be reached on Monday through Thursday from 9:00 AM to 8:00 PM. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kevin Teska, can be reached at 571-272-3761. The fax phone number for this group is 703-872-9306.

* * * *



KEVIN TESKA
SUPERVISORY
PATENT EXAMINER